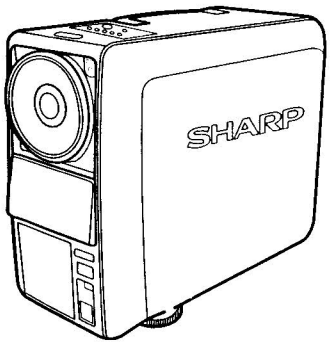
SHARP

S35L7XG3780E/



SECAM/PAL/NTSC SYSTEM
LCD PROJECTOR
LCD PROJEKTOR

MODEL
MODELL **XG-3780E**

SHARP CORPORATION

SPECIFICATIONS

Product Type:	LCD Projector
Model:	XG-3780E
Display method:	LCD panels x 1, RGB optical shutter method
LCD panels:	☐ Panel size: 6.4" (9.75 (H) x 130.0 (W) cm) ☐ Display method: Translucent TN liquid crystal panels ☐ Drive method: TFT (Thin Film Transistor) Active Matrix panels ☐ No. of pixels: 307,200 pixels (640 (H) x 480 (V))
Lens:	1—1.3 zoom lens, F5.9—6.9, f = 210—270 mm
Projection lamp:	250 W Metal halide
Contrast ratio:	100:1
Video input signal:	RCA Connector: VIDEO, Composite video: 1 Vp-p, sync negative, 75Ω terminal RCA Connector: AUDIO, 0.5Vrms less than 22kΩ
S-video input signal:	4-pin mini DIN connector Y (luminance signal): 1 Vp-p, sync negative, 75Ω terminated C (chrominance signal): burst 0.286 Vp-p, 75Ω terminated
Audio output signal:	RCA Connector: AUDIO, 0.5V rms less than 2.2KΩ
Horizontal resolution:	500 TV lines (video input)
Audio output:	5 W (monaural)
Computer RGB input signal:	Video signal: 15 pin mini D-sub connector: RGB separate type analog input: 0.7 Vp-p, positive, 75Ω terminated Stereo Minijack: AUDIO, 0.5 Vrms, more than 22KΩ (stereo) Horizontal sync. signal: TTL level (positive/negative) or composite sync. (Apple only) Vertical sync. signal: Same as above
Speaker system:	3" (8 cm) round
Rated voltage:	AC 110—120 V, 200—240 V (Switched)
Rated frequency:	50/60 Hz
Power consumption:	345 W
Operating temperature:	5°C to 40°C
Storage temperature:	– 20°C to 55°C
Cabinet:	Plastic
Dimensions (W x D x H):	196 x 423 x 320 mm
Weight:	10.2 kg
Supplied accessories:	Remote control unit, Two AAA batteries, Extra air filter, VGA signal cable (9.8', 3 m), Mac II /VGA adaptor, AC Cable, Remote control case

Specifications are subject to change without notice.

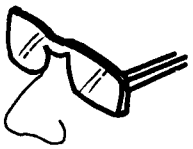
NOTE TO SERVICE PERSONNEL

UV-RADIATION PRECAUTION

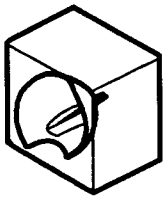
The light source, metal halide lamp, in the LCD projector emits small amounts of UV-Radiation.

AVOID DIRECT EYE AND SKIN EXPOSURE.

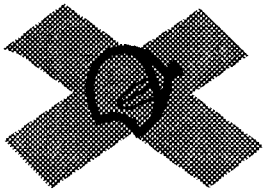
To ensure safety please adhere to the following:



1. Be sure to wear sun-glasses when servicing the projector with the lamp turned "on" and the top enclosure removed.



2. Do not operate the lamp outside of the lamp housing.



3. Do not operate for more than 2 hours with the enclosure removed.

UV-Radiation and Medium Pressure Lamp Precautions

1. Be sure to disconnect the AC plug when replacing the lamp.
2. Allow one hour for the unit to cool down before servicing.
3. Replace only with same type lamp. Type **CLMPF0023DE01** rated 85V/250W.
4. The lamp emits small amounts of UV-Radiation, avoid direct-eye contact.
5. The medium pressure lamp involves a risk of explosion. Be sure to follow installation instructions described below and handle the lamp with care.

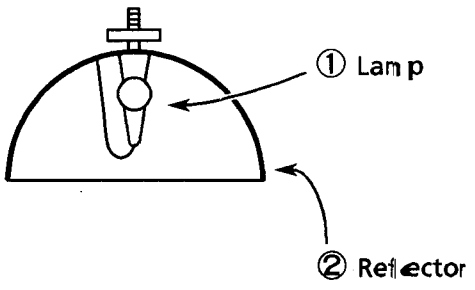
■ Lamp Replacement

Note:

Since the lamp reaches a very high temperature during units operation replacement of the lamp should be done at least one hour after the power has been turned off. (to allow the lamp to cool off.)

Installing the new lamp, make sure not to touch the lamp (bulb) replace the lamp by holding its reflector ②.

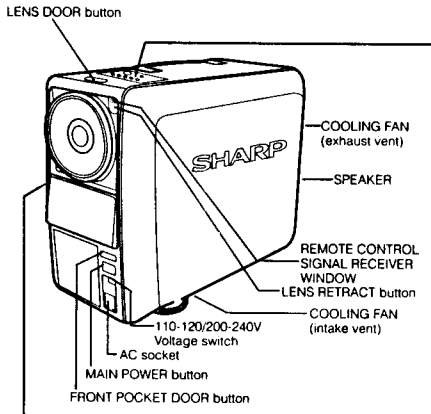
[Use original replacement only.]



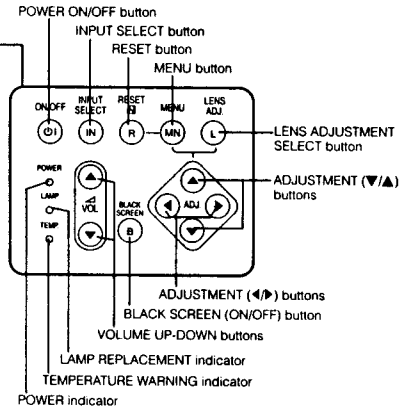
DANGER ! — Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages at its start.

Location of Controls

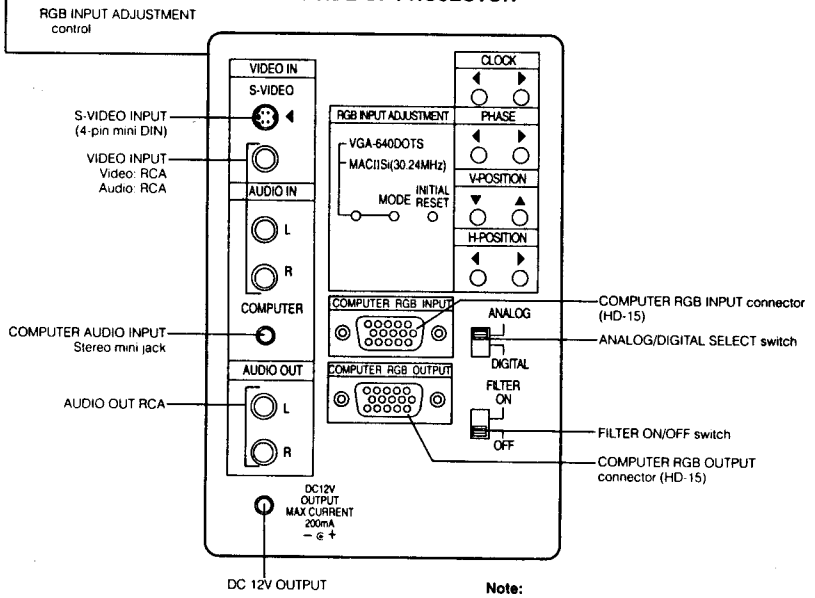
FRONT VIEW



TOP VIEW



OPERATION PANEL ON SIDE OF PROJECTOR

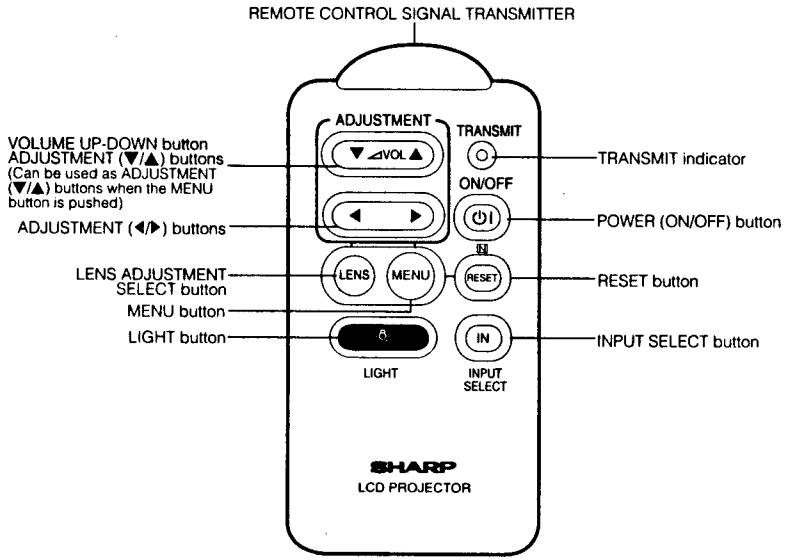


Note:
Do not connect any machines to the DC 12V OUTPUT jack with a current of more than 200 mA.

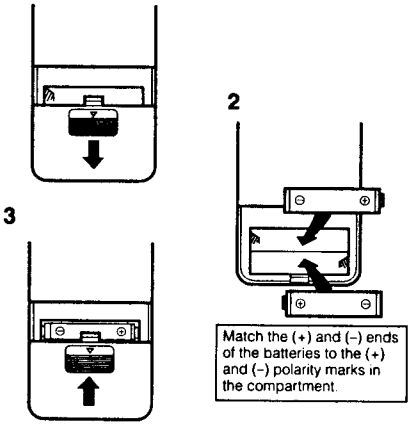
REMOTE CONTROL

Remote control handling precautions

Do not expose the remote control to shocks, liquids or high humidity.
The remote control may not operate normally if exposed to direct sunlight or other intense light sources. Should this happen, reposition the light source or the LCD Projector.



Remote Control Handling



Inserting the Batteries

- The batteries are supplied and packed with this operation manual. (Two AAA batteries.)

1 Slide the back cover downwards to open the battery compartment.

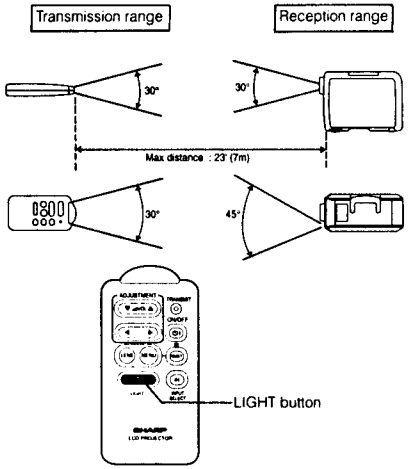
2 Insert the supplied batteries. (Two AAA batteries.)

3 Close the cover.

Notes:
Incorrect use of batteries may cause them to leak or burst.

- Insert the batteries with their (+) and (–) polarities as indicated.
- Remove the batteries if the remote control will not be operated for an extended period of time. Keep the batteries clean.
- Maintain the batteries in clean condition.
- Do not mix different brands of batteries. The life expectancy of the new batteries will be shortened and the old batteries may leak.
- When the batteries have been used up, remove them immediately to prevent leakage and damage. Leaked battery fluid may irritate the skin. Remove any leakage by wiping with a cloth.
- Due to storage conditions and the shelf life of the supplied batteries, they may run out after a short time. Replace them with new batteries as soon as possible.

Remote Control Handling



Remote control operation

■ Use the remote control as shown in the figures on the left.

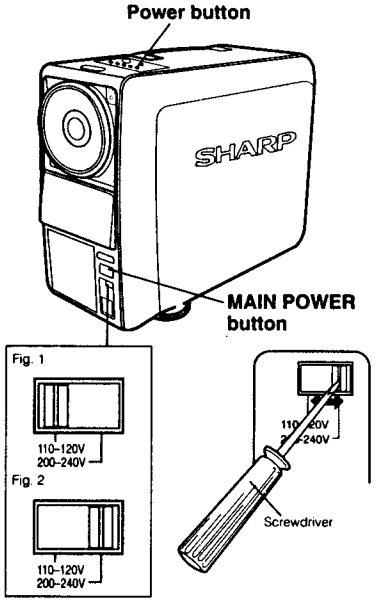
Using the remote control in a dark room

Press the LIGHT button.

■ This will cause the operation buttons to stay lit for about 5 seconds.

Note:
The operation button lights temporarily go off when the buttons are pressed.

Before Turning On the MAIN POWER



Before turning on the MAIN POWER, be sure the projector voltage matches that of the outlet voltage.

AC Voltage Switch

CAUTION:
Before plugging the AC cord into the electric outlet, be sure to check the outlet voltage.

Using an AC 110-120 V outlet

Move the switch to the left as shown in Fig. 1. Connect the cord to the outlet and turn the power ON.

Using an AC 200-240 V outlet

Move the switch to the right as shown in Fig. 2. Connect the cord to the outlet and turn the power ON.

Accidentally using the incorrect AC voltage

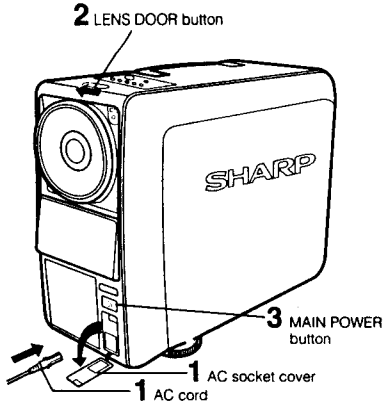
1. If the switch is set to 110-120 V (Fig. 1.) with the cord connected to a 200-240 V outlet and the power turned ON, the converter fuse will blow.
   For changing the fuse,
2. If the switch is set to 200-240 V (Fig. 2.) with the cord connected to a 110-120 V outlet and the power turned ON, the projector will not operate. Remove the cord from the outlet and move the AC voltage switch to the 110-120 V position (Fig. 1).

Moving the AC voltage switch

To slide the AC voltage switch, use a device with a thin, flat head, such as a standard screwdriver, and insert it into the white groove of the switch.

The first time you turn on the power after buying the projector, or whenever the POWER indicator is not lit, press the POWER (ON/OFF) button to turn on the power.

Setting Up the Projector



Using the Focus, Zoom

1 Connecting the AC cord

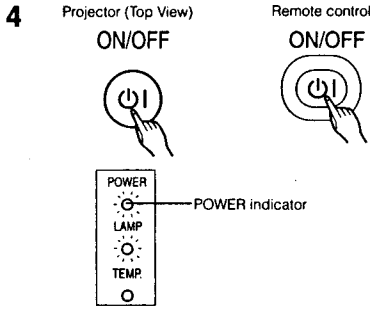
Remove the AC socket cover and connect the supplied AC cord to the socket.

2 Open the lens door.

Slide the LENS DOOR button in the direction of the arrow as shown on the left.

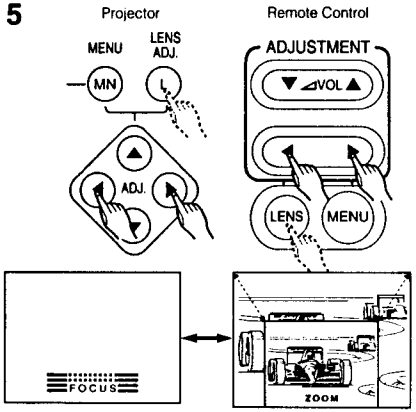
3 Turn on the MAIN POWER.

Press the Main Power button to on.
The POWER indicator lights red and the projector enters STANDBY mode.



4 Turn on the power.

Press the POWER ON/OFF button on the projector or remote control to turn on the power.



5 Press the LENS button.

- When the LENS button is pressed, FOCUS or ZOOM OSD is indicated for about 8 seconds.
- If the LENS button is pressed while the mode is indicated on the screen, the LENS adjustment mode changes as shown on the left.
- You can adjust the picture as shown on the left by pressing the ADJUSTMENT (◀) or (▶) button while in ADJUST mode.

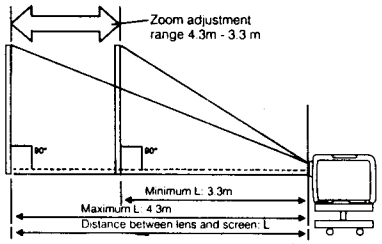
- Adjust the focus until the picture on the screen is sharp.
- The focus pattern appears on the screen.

- The picture can be adjusted to the desired size within the zoom lens range.

Setting Up the Projector

Distance from screen

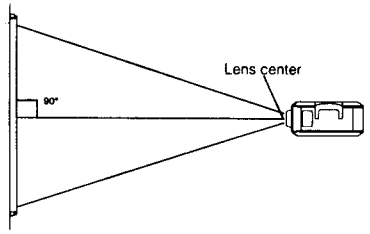
Picture size: 100 inches (254 cm)



Picture size (diag.)	Projection distance (L)	
	Maximum projection distance	Minimum projection distance
381cm (150 inches)	—	5.0 m
254cm (100 inches)	4.3 m	3.3 m
203cm (80 inches)	3.4 m	2.6 m
152cm (60 inches)	2.5 m	1.9 m
102cm (40 inches)	1.6 m	1.3 m

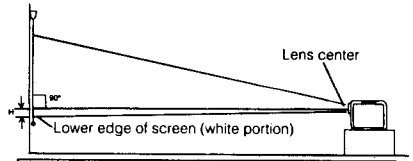
Example of a standard setup

TOP VIEW



The projector should be centered in the middle of the screen.

SIDE VIEW



If the projector and screen settings are not centered properly, the picture will be distorted, making viewing difficult.

Projector Distance and Picture Size Relationship

- The picture can be focused from a minimum of approximately 1.3m to a maximum of 5.0m from the screen. Please set up the projector within this range.

Note:
Move the projector forward or back if the edges of the image are distorted.

How to set up the projector and screen

Caution: When you set up the projector

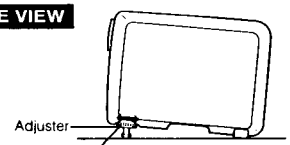
- Do not place it in humid or dusty places, or places where the air is sooty or full of cigarette smoke. If the lens, mirror, or other optical components become dirty, the picture will blur or darken, making viewing difficult.
- Do not expose to extreme heat or cold.
  Operating temperature: 5°C to 40°C
  Storage temperature: -20°C to 55°C
- Do not tilt the projector more than 10°.
- The cooling fan is located on the bottom of the projector. Do not place the projector on thick carpet or any other object which may obstruct the fan. Place the projector no closer than 4 inches (10 cm) from the wall to allow sufficient circulation for air intake and ventilation.

- Position the screen so that it is not in direct sunlight or room light. Light falling directly onto the screen washes out colors, making viewing difficult. Close the curtains and dim the lights when using the screen in a bright or sunny room.
- The best picture will be obtained when the projector is at a 90 degree angle to the screen. Position the projector and screen as shown.

Height of projector

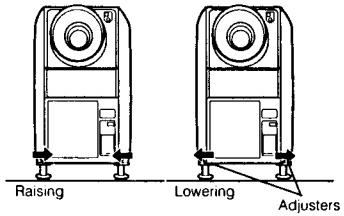
Picture size (diag.)	Distance from lens center to lower edge of screen (H)
381cm (150 inches)	58 cm
254cm (100 inches)	39 cm
203cm (80 inches)	31 cm
152cm (60 inches)	23 cm
102cm (40 inches)	15 cm

SIDE VIEW



Adjustments of up to 5° can be made.

FRONT VIEW



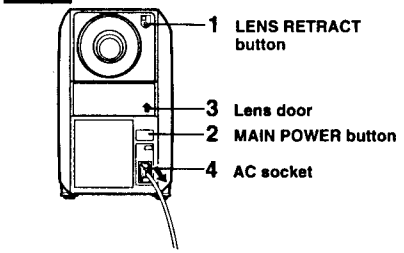
Using the Level and Height Adjusters

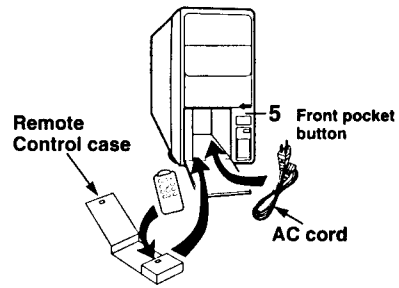
When the projector stand is not level, use the adjusters on the bottom of the projector to adjust the vertical angle.

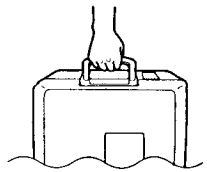
Note:
1 When adjustments are made with the adjusters, the picture may become distorted, depending on the relative positions of the projector and the screen.
2 After adjusting, in some cases, the adjuster feet may not be resting on the mounting surface.
To prevent the projector from wobbling, adjust the adjuster feet so that they firmly contact the mounting surface.

Moving the Projector

Front







1 Press the lens retract button.

When the lens retract button is pressed, the lens will retract and the lamp will turn off. After a 90-second cooling-off period the indicator will return to STANDBY mode.

Note:
The LENS RETRACT button can be used in Stand-by mode.

2 Press the MAIN POWER button

After returning to STANDBY mode, press the MAIN POWER button off.

3 Close the lens door.

Slide the door in the direction of the arrow.

Caution:
Close the lens door after the lens has retracted.

4 Remove the AC cord from the outlet and tie it together. Place the remote control into the supplied remote control case.

Note:
If the remote control is not placed into the supplied case when stored, the AC cord may press against the buttons of the remote control causing the batteries to run down.

5 Unlock and open the front pocket door.

6 Place the tied cord and remote control in the storage compartment, and close the door.

When moving the projector

Use the carrying handle when moving the projector.

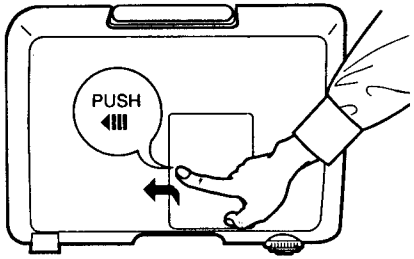
When moving the projector, carry it by the handle on the top of the unit.

Note:
When moving the projector, always shut the lens door to prevent damage to the lens.

Caution:
Do not lift and/or carry the projector by the lens.

Connecting the Projector

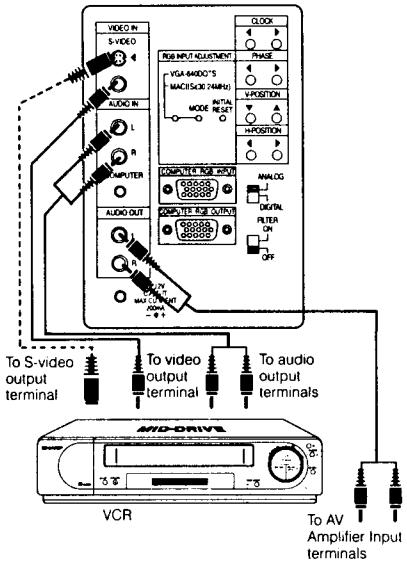
Side



Opening the Terminal Door

Press the area marked PUSH. Unlock the door and open by sliding in the direction of the arrow.

Side panel



Connecting the Projector

To watch video playback with the projector connected to audio/video output equipment, such as a VCR or Laser Disc Player, or to view on a separate monitor:

- Always turn off the LCD Projector while connecting to video equipment, in order to protect both the projector and the equipment being connected.

Notes:

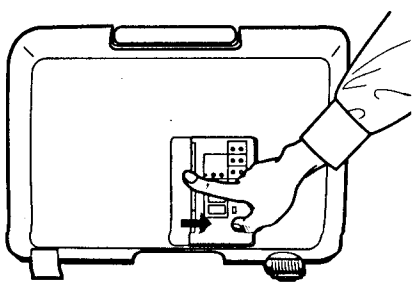
CONCERNING THE S-VIDEO INPUT TERMINAL:

- The S-VIDEO INPUT terminal uses a video signal system in which the picture is separated into a color and a luminance signal to realize a higher-quality picture.
- The S-VIDEO INPUT terminals have priority over the VIDEO INPUT terminals. Make the audio connection via the VIDEO INPUT audio terminals (left/right).
- The S-VIDEO INPUT terminal is used when the AV equipment to be connected has an S-VIDEO output terminal.

Note:

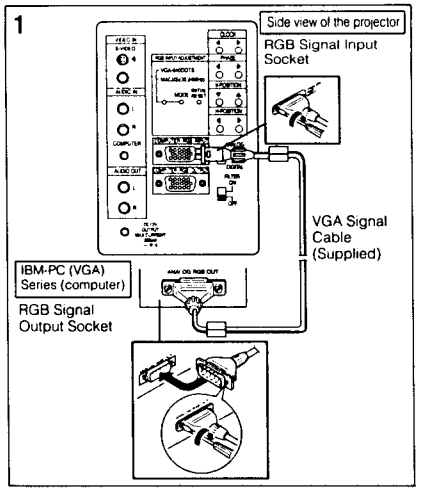
- By using the external amplifier, the volume can be amplified for greater sound

Closing the Terminal Door



Close the door by sliding the tab to the right.

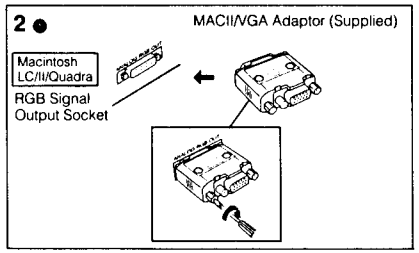
Connecting the Projector (Computer)



Before connecting, be sure to turn both the projector and the computer off. When connecting the projector to a personal computer with a digital display output port, set the ANALOG/DIGITAL selection switch to the DIGITAL position. After making all connections, first turn the projector on. The computer should always be turned on last.

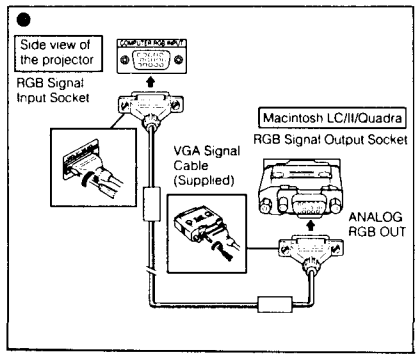
1. Connecting to an IBM-PC (VGA) Series computer — 640 x 480 maximum resolution

Plug the VGA signal cable correctly into the RGB INPUT terminal on the projector and into the RGB signal output terminal on the computer, and secure the plugs by tightening the screws.



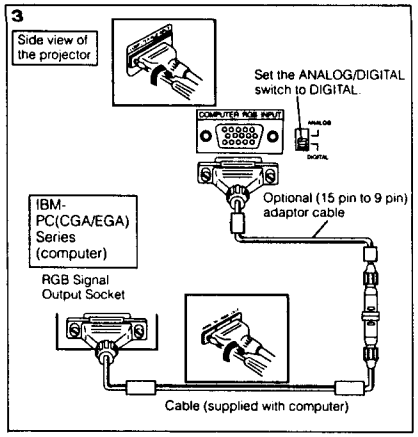
2. Connecting to a Macintosh LC/II/Quadra Series Computer — 640 x 480 maximum resolution

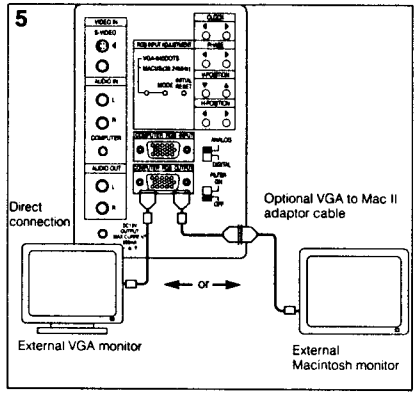
● First, connect the supplied MAC II/VGA adaptor to the RGB signal output terminal on your Macintosh LC/II/Quadra Series computer, as shown on the left and secure the plugs by tightening the screws.

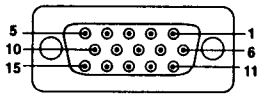


● Next, firmly plug the supplied VGA signal cable into both the RGB input terminal on the projector and the MAC II/VGA adaptor on the computer, and secure the plugs by tightening the screws.

Connecting the Projector (Computer)


3
Side view of the projector
Set the ANALOG/DIGITAL switch to DIGITAL.
Optional (15 pin to 9 pin) adaptor cable
IBM-PC(CGA/EGA) Series (computer)
RGB Signal Output Socket
Cable (supplied with computer)





Computer Input

Analog

1. Video input (red)
2. Video input (green)
3. Video input (blue)
4. Reserve input 1
5. Composite sync (MAC II only)
6. Earth (red)
7. Earth (green)
8. Earth (blue)
9. GND
10. GND
11. GND
12. Reserve input 2
13. Horizontal sync signal
14. Vertical sync signal
15. Reserve input 3

Digital

1. Video image (red)
2. Video image (green)
3. Video image (blue)
4. Video input (sub-red)
5. Reserve input
6. GND (red)
7. GND (green)
8. GND (blue)
9. GND
10. GND
11. GND
12. Video input (sub-green)
13. Horizontal synchronous signal
14. Vertical synchronous signal
15. Video input (sub-blue)

3. Connecting to an IBM-PC CGA/EGA Series Computer

4. Connecting to other compatible computers

When connecting the projector to a compatible computer other than an IBM-PC (CGA/EGA/VGA) or Macintosh LC/II/Quadra series, a separate cable is needed. Please contact your dealer for ordering information.

Note:
- Connection to computers other than the recommended types may result in damage to the projector, the computer, or both.
- Connect the audio from the computer to the AUDIO IN (COMPUTER) terminal.

5. External monitor connection

Connect your computer monitor to the Projector's COMPUTER RGB OUTPUT terminal to view images simultaneously on the external monitor and the projection screen.

Caution (Apple Macintosh II/LC/Quadra)
Do not connect the COMPUTER RGB OUTPUT to any monitor except the following:
Apple Color RGB Monitor: 13" (640 x 480)

Note:
- When using the projector with an external VGA monitor, connect the monitor using the supplied cable. When using the projector with a Macintosh monitor, an optional adaptor cable is required. Before using any other type of monitor, carefully check the monitor's interface specifications and make sure that they match the specifications of the projector's interface.
  The external monitor output will only display an analog computer input signal. It will not display a digital or video input signal. To split the composite video signal, use a video distribution amplifier. This is available from your local dealer.
  The computer RGB output will only loop through the same signal connected to the computer RGB input.
  (VGA IN → VGA OUT, MAC II IN → MAC II OUT)
- When connecting the monitor, attach the supplied ferrite cores to the ends of the adaptor cable.

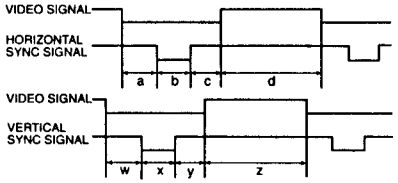
Analog RGB Signal Input and Output Connector

- This unit uses a 15-pin mini D-sub female connector. Pin assignment is as shown on the left.

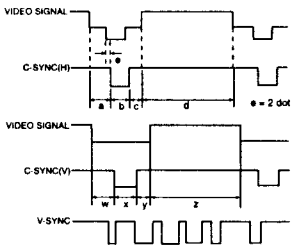
Input Signals (Recommended Timing)

For IBM and Compatibles

Input signals: The video output signal timings of different types of video signals are shown below for reference.

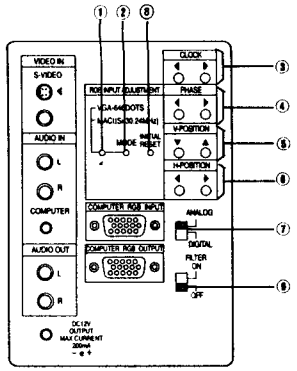


For Apple Macintosh II Series



MODE			IBM VGA					IBM VESA	IBM EGA	IBM CGA	Apple Macintosh™ IIsi	Apple Macintosh™ LC
			TEXT		Graphic			Graphic			13" Monitor	
			720 dot		640 dot			640 dot	640 dot	640 dot	640 dot	640 dot
			350 line	400 line	350 line	400 line	480 line	480 line	350 line	200 line	480 line	480 line
VIDEO	LEVEL		0.7Vp-p 75Ω load					0.7Vp-p 75Ω load	TTL	TTL	1Vp-p max. 75Ω load	0.7Vp-p max. 75Ω load
	TYPE		R+G+B					R+G+B	R+G+B I	R+G+B I	R+G+B C.SYNC	R+G+B C.SYNC
H SYNC	FRONT PORCH a	dot	17		14			24	-6	95/103	64	78
	SYNC b	dot	108		96			40	80	64/48	64	62
	BACK PORCH c	dot	55		50			128	30	113/121	96	116
	VIDEO PERIOD d	dot	720		640			640	640	640	640	640
	1H (a+b+c+d)	dot	900		800			832	744	912	864	896
		µs	31.7774		31.7776			26.413	46.765	63.696	28.5714	28.595
	1 dot	ns	35.3082		39.7219			31.746	61.512	69.842	33.0688	31.914063
	1/H	kHz	31.4689		31.4688			37.860	21.851	15.700	35.0000	34.971149
	1/dot	MHz	28.322		25.175			31.500	16.257	14.318	30.2400	31.334149
	LEVEL		TTL	TTL	TTL			TTL	TTL	TTL	TTL	TTL
	SYNC POLARITY	+/-	+	-	+	-	-	-	+	+	-	-
V SYNC	FRONT PORCH w	H	38	13	38	13	11	9	1	25	3	3
	SYNC x	H	2	2	2	2	2	3	13	3	3	3
	BACK PORCH y	H	59	34	59	34	32	28	2	34	39	39
	VIDEO PERIOD z	H	350	400	350	400	480	480	350	200	480	480
	1V (w+x+y+z)	H	449	449	449	449	525	520	366	262	525	525
		ms	14.2681	14.2681	14.2681	14.2681	16.6832	13.735	16.750	16.688	15.00	15.00
	1/v	Hz	70.0866	70.0866	70.0863	70.0863	59.9405	72.809	59.702	59.92	66.67	66.67
	LEVEL		TTL	TTL	TTL	TTL	TTL	TTL	TTL	TTL	TTL	TTL
	SYNC POLARITY	+/-	-	+	-	+	-	-	-	+	-	-

RGB Adjustment Controls



MODE

< CLOCK>

< PHASE>

∨ V-POS ∧

< H-POS >

RESET

1. PERFORMING BASIC RGB ADJUSTMENT

USER ADJUSTABLE CONTROLS

① MODE Indicator

- The indicator comes "ON" when receiving a VIDEO signal, or when the RGB Input Signal is in the VGA 640 dot display mode or Macintosh II display mode with 35 kHz horizontal scan frequency and 30.24 MHz dot frequency. (For details, see "MODE SELECT button.")
- The Mode LED indicator flashes when there is no video or RGB signal or when connecting an incompatible computer.

② MODE SELECT button

Connecting to IBM-PC(VGA) Computers

- Ordinarily, the type of input signal is detected and the correct resolution mode (Text or Graphics) is automatically selected. However, for the following signals, you must use the MODE SELECT button to set the projector's resolution mode to match the computer display mode properly.
  720 dots x 400 lines, 720 dots x 350 lines (Text Mode)
  640 dots x 400 lines, 640 dots x 350 lines (Graphic Mode)
- In this case, when the MODE SELECT button is pressed to select Graphic Mode (640 dots x 400 lines, 640 dots x 350 lines), the MODE (640 DOTS) indicator turns "ON".
- If the MODE SELECT button is pressed again at this time, the resolution mode changes to Text Mode (720 dots x 400 lines, 720 dots x 350 lines), and the MODE indicator turns "OFF".

Connecting to Macintosh LC/II Series Computers

- When connecting to a Macintosh II with 30.24 MHz Dot Frequency, press the MODE SELECT button to turn the MODE indicator "ON".
- When connecting to a Macintosh LC Series computer with 31.33 MHz Dot Frequency, turn the MODE indicator "OFF".
- When connecting to third party video cards and other Macintosh computers, press the MODE SELECT button to select the correct display mode.

③ CLOCK SPEED ADJUSTMENT (FAST/SLOW) buttons

- Used to reduce image distortion or improve contrast.

④ PHASE ADJUSTMENT (UP/DOWN) buttons

- Used to reduce image distortion or improve contrast.

⑤ VERTICAL POSITION ADJUSTMENT (TOP/BOTTOM) buttons

- If on-screen images are too high or low, they can be moved to the center with these buttons.

⑥ HORIZONTAL POSITION ADJUSTMENT (LEFT/RIGHT) buttons

- If on-screen images are too far to left or right, they can be moved to the center with these buttons.

Note:
⑤ VERTICAL ⑥ HORIZONTAL POSITION ADJUSTMENT and ⑧ INITIAL RESET can also be used to move images while in VIDEO mode.

⑦ RGB INPUT SELECT switch

- For use with digital RGB video output equipment, set mode to DIGITAL.
- For all display modes except this, set to ANALOG.
  (Set to ANALOG mode at factory.)

⑧ INITIAL RESET button

- A push of this button resets the H-POS,V-POS, PHASE and CLOCK adjustments to their initial settings.

⑨ Filter switch

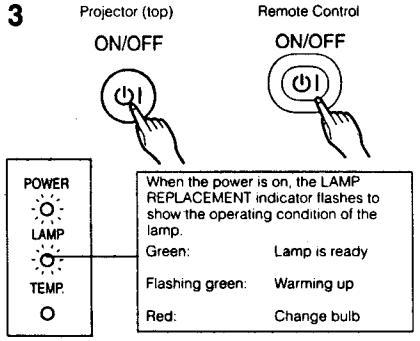
- In the case of very detailed computer patterns which repeat every other dot (tiling, vertical stripes, etc.), noise may appear on the screen. Should this occur, press the FILTER button "ON". The pattern area will balance, and the noise will be reduced.

Note:

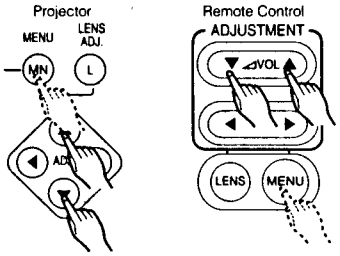
1) When displaying computer patterns which repeat every other dot (tiling, vertical stripes, etc.), interference may occur between the LCD pixels, causing flickering, vertical stripes, or contrast irregularities in portions of the screen. Should this occur, use the HORIZONTAL (◀,▶) and VERTICAL (▼,▲) adjustment buttons to adjust for the optimum picture.
2) The phenomena described in (1) may also occur when the image is reversed. Once again, use the HORIZONTAL (◀,▶) and VERTICAL (▼,▲) adjustment buttons to adjust for the optimum picture.
3) Avoid displaying computer patterns which repeat every other line (horizontal stripes). (Flickering will occur, making the picture hard to see.)

Basic Operation of the Projector

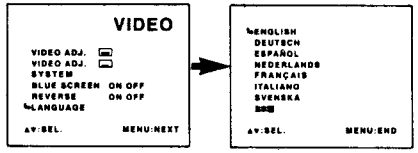
3

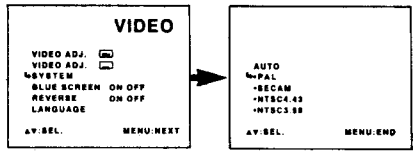


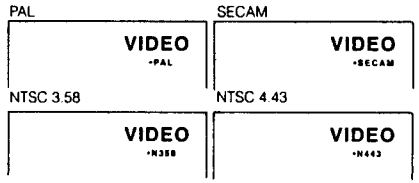
4.5



On-Screen Display







1. Plug the supplied AC cord into the AC socket.

2. Turn ON the MAIN POWER

Press the MAIN POWER button ON.

3. Turn ON the POWER

Press the POWER button.

- When the power is turned off by pressing the POWER (ON/OFF) button, the POWER indicator will not turn off until the fan has stopped running.

*See page 22, "Lamp/Maintenance Indicators", for details.

Notes:

- When the POWER indicator is not lit, the remote control cannot be used to operate the projector.
- If the power is turned on immediately after it has been turned off, it may take a short while before the lamp turns on. (During this period the LAMP REPLACEMENT indicator flashes.)
- After the projector is unpacked and turned on for the first time, a slight odor may be emitted from the exhaust fan. This odor will disappear with use.

4. ON SCREEN DISPLAY in 8 languages

The on screen display is set to English at the factory. The language for the unit's ON SCREEN DISPLAY can be set to English, German, Spanish, Dutch, French, Italian, Swedish or Japanese.

• Setting the ON SCREEN DISPLAY language

(1) Press the MENU button. The menu will appear on the screen.
(2) Press the ADJUSTMENT ▼/▲ buttons until the ↳ mark is set to "LANGUAGE".
Press the MENU button to display the language menu.
(3) Press the ADJUSTMENT ▼/▲ buttons until the ↳ mark matches the language desired, and then press the MENU button to set the language. The ON SCREEN DISPLAY is now programmed to display in the language chosen.

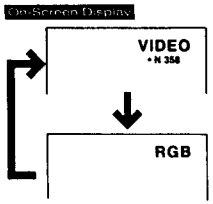
5. Changing the system mode

The system mode is set to AUTO at the factory, but it can be changed to a different mode.

(1) Press the MENU button. The menu will appear on the screen.
(2) Press the ADJUSTMENT ▼/▲ buttons until the ↳ Mark is set to "SYSTEM".
Press the MENU button to display the system menu.
(3) Press the ADJUSTMENT ▼/▲ buttons until the ↳ mark matches the video system desired and then press the MENU button to set the system.

Note:
In AUTO mode, "PAL", "SECAM", "NTSC4.43" or "NTSC3.58" is displayed on the screen for a few seconds when the mode is automatically changed.

Basic Operation of the Projector



For viewing the picture from a video source connected to: VIDEO INPUT or S-VIDEO INPUT

COMPUTER RGB

6. Select Input

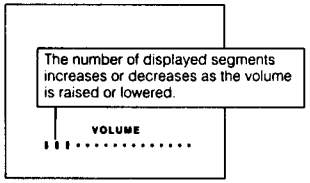
Press the INPUT SELECT button to switch the picture input. When you press the button, the current input mode is displayed for about 4 seconds. If you press the button again while the input mode is displayed, the mode changes as shown on the left.

Confirm the selected input terminal, then press the INPUT SELECT button.

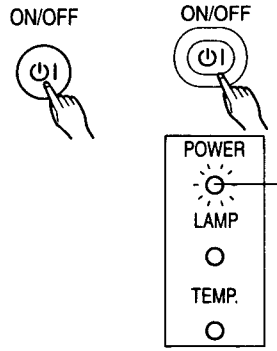
Note:
- When receiving a VIDEO or RGB signal, the MODE indicator will be displayed. When no signal is being received, the MODE indicator will blink.
- In VIDEO mode, the system being received will be indicated below the "VIDEO" display.

7. Adjust the volume

Press the Volume Up-Down button on the projector or on the remote control to adjust the volume.



Projector (Top) Remote Control



8. Turning off the power from the projector or remote control

Note:
Press the LENS RETRACT button to retract the lens.

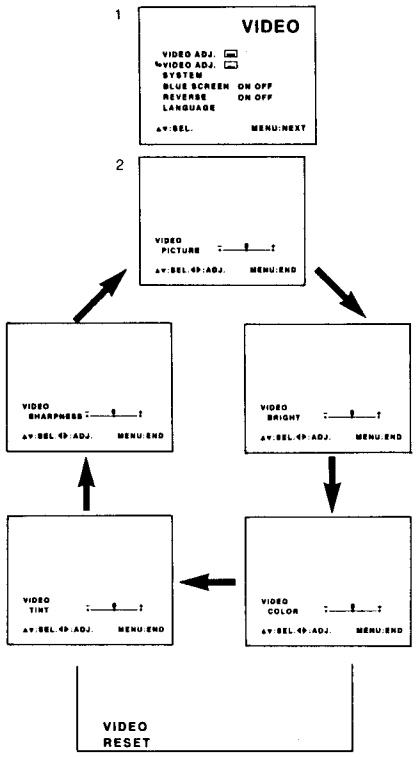
After the POWER indicator lights red and the cooling fan runs for 90 seconds, the power will turn off, and the projector will return to STANDBY mode.

The power can be turned on again either from the projector or remote control. When the power is turned on, the POWER indicator and LAMP REPLACEMENT indicator light green.

NOTE:
- When the MAIN POWER is off, the power cannot be turned on from the remote control or projector.
- When the MAIN POWER is off, the lens will not retract. Be sure to press the LENS RETRACT button before turning off the MAIN POWER.

Adjusting the Picture

On-Screen Display



- This projector's picture is factory preset to standard settings. However, you can adjust it to suit your own preferences with the VIDEO ADJUSTMENT buttons on the projector and the remote control.
- The adjustment can be memorized in VIDEO or RGB separately.
- Five picture modes can be adjusted: "PICTURE", "BRIGHT", "COLOR", "TINT" and "SHARPNESS".

Adjusting the Picture

1 Use the MENU button to select the mode to be adjusted.

- When the MENU button is pressed, the MENU mode is indicated for about 30 seconds. Press the ADJUSTMENT ▼/▲ buttons to select "VIDEO ADJ. ", then press the MENU button.

2 Press the ADJUSTMENT ◀/▶ buttons.

- If the VIDEO ADJUSTMENT ▼/▲ buttons are pressed while the mode is indicated on the screen, the MENU mode changes as shown.
- When the ADJUSTMENT (◀) or (▶) buttons are pressed while the mode you want to adjust is indicated, the "•" mark, which indicates the adjustment setting, can be moved.
- The adjustment mode is indicated for 8 seconds

Description of Adjustment Items

Selected item	ADJUSTMENT ▼ button	ADJUSTMENT ▲ button
PICTURE	To decrease contrast	To increase contrast
TINT	Skin tones become purplish	Skin tones become greenish
COLOR	For less color intensity	For more color intensity
BRIGHT	For less brightness	For more brightness
SHARPNESS	For less sharpness	For more sharpness
RED (FOR RGB)	For weaker red	For stronger red
BLUE (FOR RGB)	For weaker blue	For stronger blue

Note:
- When an RGB signal input has been selected, only "Picture" "BRIGHT" "RED" and "BLUE" can be adjusted.

To return to the factory preset settings

When the RESET button is pressed in the adjustment setting mode, the "•" mark will return to the factory preset setting. When the RESET button is pressed during a normal picture, "VIDEO RESET"appears on the screen, then the status memory returns to the factory preset setting. RESET is separate for VIDEO and RGB modes. In RGB mode, "RGB RESET" appears on the screen.

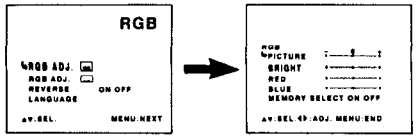
Checking Picture Adjustments

When the MENU button is pressed, the MENU mode is indicated for about 30 seconds. Press the ADJUSTMENT (▼/▲) buttons to select "VIDEO ADJ. ", then press the MENU button.

On-Screen Display

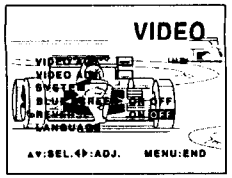
When video mode is selected.

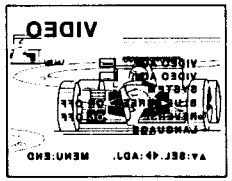
When RGB is selected.



- Each time you press the ADJUSTMENT ▼/▲ buttons while the display is shown, the "↳" mark will move to indicate the *selected video status item for adjustment.*
- When the ADJUSTMENT (◀) or (▶) buttons are pressed, the "•" mark moves.
- The adjustment mode is indicated for 30 second.

Functions on the Projector





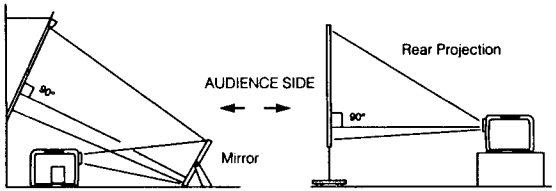
Reversing the Image

- This projector is equipped with an image reverse function. The projected image can be reversed by using the MENU button on the projector or on the remote control.
- Using the reverse function makes the setups shown below possible.

Press the MENU button

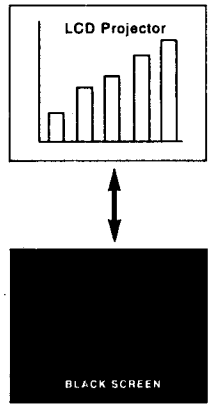
- When the MENU button is pressed, the MENU mode is indicated for about 4 seconds. Press the ADJUSTMENT ▼/▲ buttons to select "REVERSE," then press the ADJUSTMENT ◀/▶ button to change the image.

- The projector allows the image to be reversed.
- By placing a mirror in front of the lens and using the reverse function, the image reflected from the mirror can be projected onto the screen.
- Rear projection using a rear projection screen is also possible when the reverse function is used.

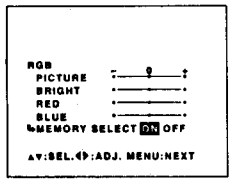


Black Screen Mode

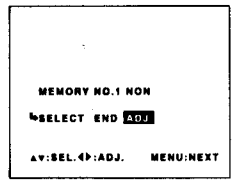
When the BLACK SCREEN button on the projector is pressed, a black screen will appear on the screen. This can be used to black out the presentation image. Each time the button is pressed, the screen will change back and forth between the presentation image and the black screen.

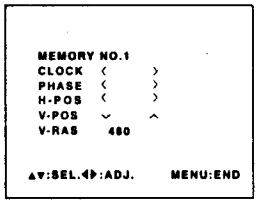


1



2





Computer Mode Memory Adjustments

- The projector has been preset with different modes for use with VGA and other compatible computers. However, 7 memory positions are provided to store mode adjustments.
- Each memory position can be used to store mode adjustments to match the computer.

1 Press the MENU button to select the Memory Adjustment mode

When the MENU button is pressed, the MENU mode is indicated for about 30 seconds. Press the ADJUSTMENT (▼/▲) buttons to select "RGB ADJ.". The MENU mode changes as shown.
While the RGB adjustment menu is displayed, press the ADJUSTMENT (▼/▲) buttons to select "MEMORY SELECT", then press the ADJUSTMENT (◀/▶) buttons to select "ON", and press the MENU button to change the image.

2 Press the ADJUSTMENT (◀/▶) buttons.

- There are 7 memory positions. Press the ADJUSTMENT (◀/▶) buttons to select the number of the memory you wish to adjust. Press the ▶ button to select a higher number, and the ◀ button to select a lower number. If that memory position has not been set, "NON" will be displayed. If it has, "USE" will be displayed.
  MEMORY No. 0 cannot be set. It contains the factory presets, which are fixed.

- To make or change a setting, press the ADJUSTMENT (▼/▲) buttons to move the cursor to "SELECT." and press the ADJUSTMENT (◀/▶) buttons to choose "ADJ." (If you do not want to adjust any settings, select "END".) Then press the MENU button to go to the next screen.
- Press the INITIAL RESET button on the side of the projector to return to the initial settings.

- Select the item you want to adjust by pressing the MENU button, then use the ADJUSTMENT (▼/▲) buttons to make the adjustments. When adjustments are complete, select ADJ. END. The display disappears and the adjustments are stored in memory as a user mode. See page 14 for details on the adjustment items. V-RAS can be adjusted from 200 to 480 in 1-line increments.

Adjusting the V-RAS

- V-RAS: Use to adjust the number of vertical lines from the input signal. (In the range of 200 to 480 lines, adjustments can be made in 1-line increments.)

Automatic display mode priority

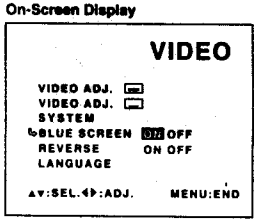
- To prioritize the computer memory modes, the order begins with the present mode and proceeds through the remaining modes in sequence.
  For example, if set to Memory No. 2, the projector automatically proceeds through the following order to find the memory mode that matches the computer: Memory No. 2 → Memory No. 0 (factory preset mode) → Memory No. 1 → Memory No. 3.

Note:

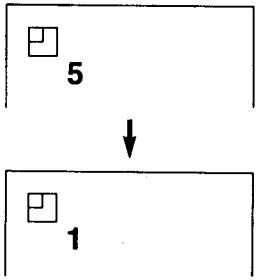
- The V-POSITION ,H-POSITION, CLOCK, PHASE buttons on the projector cannot be operated while user memory adjustments are being carried out.

Functions on the Projector

On-Screen Display



On-Screen Display



Using the Blue Screen Function

- This projector is equipped with a Blue Screen function that will turn the screen blue when you select an input terminal which is not connected to anything, or which is connected to a video component that is turned off.

Press the MENU button.

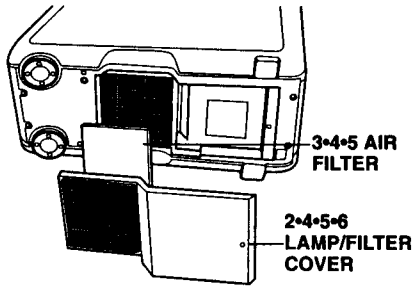
- When the MENU button is pressed, the MENU mode is indicated for about 30 seconds. Press the ADJUSTMENT (▼/▲) buttons to select "BLUE SCREEN", and press the ADJUSTMENT (◀/▶) buttons to select ON or OFF.
- When the Blue Screen function is on, the screen will turn blue when no video signal is being input through the selected video input terminal.
- When the Blue Screen function is on, and no video signal is input via the selected input terminal for more than 15 minutes, the power is automatically turned off.

- Five minutes and one minute before the power is turned off, the indicators as shown appear.

Notes:
- The Blue Screen Function does not operate in RGB mode.
- When the power is turned off, the POWER indicator will light red.
- To turn the power on again, press the POWER switch to set it to OFF, then press it again to set it to ON.

Air Filter Maintenance

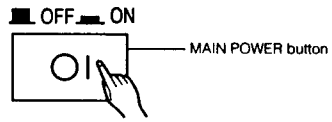
Bottom Side of the Projector



Cleaning and Replacing the Filter

- The air filter should be cleaned after every 100 hours of use. Clean the filter more often when the projector is used in a dusty or smoky location.
- Have your nearest Authorized SharpVision Service Center or Dealer replace the filter (PFILD0035CEZZ) when it is no longer possible to clean it.

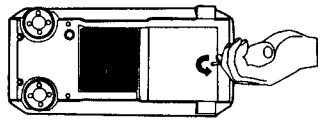
1



1 Turn OFF the MAIN POWER.

Power indicator goes off.
Unplug the power cord.

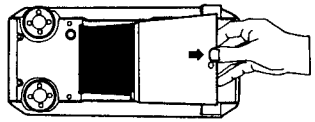
2



2 Remove the LAMP/FILTER COVER.

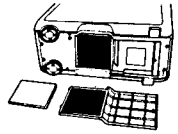
Loosen the screw with a Philips-type screwdriver, then remove the LAMP/FILTER cover

3

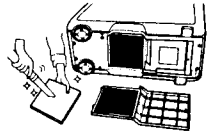


3 Remove the AIR FILTER.

Hold the LAMP/FILTER cover between your fingers and pull to remove. Remove the air filter.



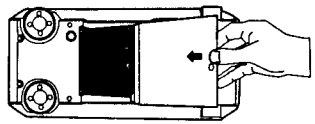
4



4 Clean the AIR FILTER.

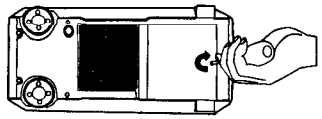
Clean the dust off the air filter, and cover with a vacuum cleaner.
If the filter is very dirty, wash with a water-diluted neutral detergent. Leave the filter to dry in the sun.

5,6



5 Replace AIR FILTER and LAMP/FILTER COVER.

Return the air filter to its original position in the LAMP/FILTER cover and replace the LAMP/FILTER cover.



6 Replace the LAMP/FILTER COVER.

Tighten the screw with a Philips-type screwdriver.

Note:
- Be sure the LAMP/FILTER COVER is securely installed. The power cannot be turned on unless it is correctly installed.

Lamp/Maintenance Indicators

Lamp

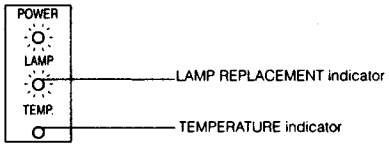
The Lamp has a finite operating life.

1 When the lamp is nearly burned out, the picture and color quality deteriorate. At this point, replace the lamp.
2 If the new lamp does not light after replacement, take your projector to the nearest Authorized Sharp Industrial LCD Products Dealer for repair.

• Intense light hazard. Do not attempt to look into the aperture and lens while the projector is operating.

Maintenance Indicators

- The warning lights on the projector indicate problems inside the projector.
- There are two warning lights; a TEMPERATURE indicator which warns that the projector is too hot, and a LAMP replacement indicator which lets you know when to change the bulb.
- If a problem occurs, either the TEMPERATURE indicator or the LAMP replacement indicator will light up red, and the power will shut off. After turning off the power, follow the procedures given below.



Warning Indicator	Symptom	Problem	Possible Solution
TEMPERATURE indicator	The internal temperature is abnormally high.	•Blocked air intake.	• Relocate projector to a proper location.
		•Clogged air filter	• Clean the filter.
		•Cooling fan breakdown. •Internal circuit failure.	• Take the projector to your nearest Authorized Sharp Industrial LCD Products Dealer for repair.
LAMP REPLACEMENT indicator	The lamp does not light up.	•Burnt-out lamp	• Carefully change the lamp.
		•Lamp circuit failure	• Take the projector to your nearest Authorized Sharp Industrial LCD Products Dealer for repair.

Notes:

- If the TEMPERATURE indicator light comes on, after servicing, please wait until the projector has cooled down completely before turning the power back on (At least 5 minutes.)
- When the power is turned off and then turned on again, as during a brief rest, the LAMP replacement indicator may be triggered, preventing the power from going on. When this happens, press the Main Power button to off and then press once again to on.

Before Calling for Service

Problem	Check
No picture and no sound	• The AC Voltage switch is not set to the correct voltage setting. • The fuse is blown out. • The projector power cord is not plugged into the AC wall outlet. • The main power button is not pressed. • The INPUT SELECT input is wrong. • Cables improperly connected to side panel of the projector. • Remote control batteries have run down.
Sound is heard but no picture appears.	• Cables improperly connected to side panel of the projector. • The BRIGHTNESS and the PICTURE adjustment is set to minimum position.
Color is faded or poor.	• Check that the COLOR and TINT adjustments are correct.
Picture is blurred.	• Adjust the focus. • The projection distance is too long or too short to allow for proper focus.
Picture appears but no sound is heard.	• Cables improperly connected to side panel of the projector. • Volume is set to minimum.
An unusual sound is occasionally heard from the cabinet.	• If the picture is normal, the sound is due to cabinet shrinkage caused by temperature changes. This will not affect operation or performance.
Maintenance indicator lights up.	• Refer to "Lamp/Maintenance Indicator".

Changing the Fuse

If the fuse in the projector blows, please call your local Authorized Sharp Industrial LCD Products Dealer or the nearest Authorized Sharp Service Center for changing the fuse.